REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Lab	aboratory Name: Connecticut Testing Lab's, Inc. Client: Leggette, Brashears & Graham, Inc.									
Proj	ect Location:		Project Number:	WENDEL 1						
Labo	oratory Sample Id(s):	2759-2779, 2781-2790	Sampling Date(s):	2/21/12						
List Use	RCP Method(s) d:	СТ ЕТРН	CTL Lab #:	0212259						
Rea	ctivation 🗌 Dat	e Reactivated:								
1	all specified QA/QC explain any criteria fa	nethod referenced in this laboratory performance criteria followed, includ alling outside of acceptable guidelind cific Reasonable Confidence Protoc	ling the requirements, as specified in	ent to 🗔 🖂 🗸	es 🗌 No					
1A	Were the method spe	ecified preservation and holding time	e requirements m	et? 🛛 Yo	es 🗌 No					
1B	VPH and EPH Methor without significant more methods)	ods only: Was the VPH or EPH met odifications (see Section 11.3 of res	hod conducted pective RCP	□ Y	es No					
2	Were all samples red described on the ass	eived by the laboratory in a condition ociated chain-of-custody document	on consistent with (s)?	that 🛛 Ye	es 🗌 No					
3	Were samples receiv	ed at an appropriate temperature (< ☑ Iced ☐ No Ice	:6° C°)?	☐ Ye	s ⊠ No] N/A					
4	Was all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? □ Yes □ No									
5	a) Were reporting lim	its specified or referenced on the ch	nain-of-custody?	⊠ Y	es 🗌 No					
J	b) Were these reporti	ng limits met?		⊠ Ye	s 🗌 No					
6	results reported for a	nethod referenced in this laboratory I constituents identified in the metho Reasonable Confidence Protocol d	od-specific analyte		es 🗌 No					
7	Are project-specific modata set?	natrix spikes and laboratory duplicat	es included in this	S ⊠ Y€	es 🗌 No					
be pr	ovided in an attached na	nich the response was "No" (with the ex rrative. If the answer to question #1, #1 ble Confidence." This form may not be	A, or #1B is "No", t	he data package	does not meet					
base		der the pains and penalties of perjury uiry of those responsible for providir ccurate and complete.								
	e e	AMI -								
	orized Signature: ed Name: Ste	phen J. Franco	Position: Lal Date: 2/2	o Director PH-0 29/12	9547					
Nam	e of Laboratory: Conr	ecticut Testing Laboratories, Inc								

CASE NARRATIVE

Connecticut Testing Laboratories, Inc.

Prepared for:

Leggette, Brashears & Graham 6 Executive Drive Suite 109 Farmington, CT 06032 Order#:

0212259

Project:

WENDEL 1

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
B-100 (0-1)	2759	SOIL	02/21/2012	02/22/2012
B-100 (2-3)	2760	SOIL	02/21/2012	02/22/2012
B-101 (0-1)	2761	SOIL	02/21/2012	02/22/2012
B-102 (0-1)	2762	SOIL	02/21/2012	02/22/2012
B-102 (2-3)	2763	SOIL	02/21/2012	02/22/2012
B-103 (0-1)	2764	SOIL	02/21/2012	02/22/2012
B-103 (2-3)	2765	SOIL	02/21/2012	02/22/2012
B-104 (0-1)	2766	SOIL	02/21/2012	02/22/2012
B-104 (2-3)	2767	SOIL	02/21/2012	02/22/2012
B-105 (0-1)	2768	SOIL	02/21/2012	02/22/2012
B-105 (2-3)	2769	SOIL .	02/21/2012	02/22/2012
B-106 (0-1)	2770	SOIL	02/21/2012	02/22/2012
B-106 (2-3)	2771	SOIL	02/21/2012	02/22/2012
B-107 (0-1)	2772	SOIL	02/21/2012	02/22/2012
B-107 (2-3)	2773	SOIL	02/21/2012	02/22/2012
B-108 (0-1)	2774	SOIL	02/21/2012	02/22/2012
B-108 (2-3)	2775	SOIL	02/21/2012	02/22/2012
B-109 (0-1)	2776	SOIL	02/21/2012	02/22/2012
B-109 (2-2.5)	2777	SOIL	02/21/2012	02/22/2012
B-110 (0-1)	2778	SOIL	02/21/2012	02/22/2012
B-110 (2-3)	2779	SOIL	02/21/2012	02/22/2012
B-110 (5-6)	2780	SOIL	02/21/2012	02/22/2012
B-111 (0-1)	2781	SOIL	02/21/2012	02/22/2012
B-111 (2-3)	2782	SOIL	02/21/2012	02/22/2012
B-112 (0-1)	2783	SOIL	02/21/2012	02/22/2012
B-112 (2-3)	2784	SOIL	02/21/2012	02/22/2012
B-113 (0-0.5)	2785	SOIL	02/21/2012	02/22/2012
B-114 (0-0.5)	2786	SOIL	02/21/2012	02/22/2012

CASE NARRATIVE

Connecticut Testing Laboratories, Inc.

Prepared for:

Leggette, Brashears & Graham 6 Executive Drive Suite 109 Farmington, CT 06032

Order#: 0212259

Project: WENDEL 1

2/29/12

Date:

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

B-115 (0-0.5)	2787	SOIL	02/21/2012	02/22/2012
B-116 (0-1)	2788	SOIL	02/21/2012	02/22/2012
B-117 (0-1)	2789	SOIL	02/21/2012	02/22/2012
B-100 (0-1) DUP	2790	SOIL	02/21/2012	02/22/2012

No analytical was requested for CTL sample no. 2780.

The total solids results for CTL sample nos. 2788 & 2789 were 59.3% and 50.6% respectively, and as a result the reporting levels have been raised accordingly.

The ETPH discrimination check meets RCP criteria.

ETPH anomalies are noted in the RCP DQA summary table attached to this report.

The enclosed results of analyses are representative of the samples as received by the laboratory. Connecticut Testing Laboratories, Inc. makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By:

Connecticut Testing Laboratories, Inc.

Client Name: Leggette, Brashears & Graham

CT ETPH/3545

CTL Lab No.: PO No:

0212259

Method #:

Report Date: 02/29/2012

Analyst:

WENDEL 1 LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type: **CTL Sample No.:** SOIL

SOIL 2760

SOIL 2761 SOIL 2762

Field ID:

2759 B-100 (0-1)

B-100 (2-3)

B-101 (0-1) 02/28/2012

B-102 (0-1) 02/28/2012

Date Analyzed: **Date Extracted:**

02/28/2012 02/27/2012 02/28/2012 02/27/2012

02/27/2012

02/27/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	ND	ND	ND	ND
1-Chloro-Octadecene	%		89	96	89	94

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

Method #: CT ETPH/3545 CTL Lab No.:

0212259

WENDEL 1

PO No: Analyst:

LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type:

CTL Sample No.:

Field ID: Date Analyzed: Date Extracted:

SOIL 2763

B-102 (2-3)

02/28/2012

02/27/2012

SOIL 2764

B-103 (0-1) 02/28/2012

02/27/2012

2765 B-103 (2-3)

02/29/2012

02/27/2012

SOIL

SOIL 2766

B-104 (0-1) 02/29/2012 02/27/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	ND	17,250	1,436	ND
1-Chloro-Octadecene	%		99	305	118	108

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

CTL Lab No.:

0212259

PO No:

WENDEL 1

Method #: CT ETPH/3545 Analyst:

LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type: CTL Sample No.:

SOIL 2767

SOIL 2768

SOIL 2769 SOIL 2770

Field ID:

B-104 (2-3)

B-105 (0-1)

B-105 (2-3)

B-106 (0-1)

Date Analyzed: **Date Extracted:**

02/29/2012 02/27/2012 02/28/2012 02/27/2012

02/28/2012 02/27/2012 02/28/2012 02/27/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	ND	ND	ND	ND
1-Chloro-Octadecene	%		99	94	95	89

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

CTL Lab No.: PO No:

0212259

WENDEL 1

Method #:

CT ETPH/3545

Analyst:

LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type:

SOIL

SOIL

SOIL

SOIL

CTL Sample No.:

Date Extracted:

2771

2772 B-107 (0-1) 2773 B-107 (2-3) 2774 B-108 (0-1)

Field ID: Date Analyzed: B-106 (2-3) 02/28/2012

02/27/2012

02/28/2012 02/27/2012

02/28/2012 02/27/2012 02/28/2012 02/27/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	ND	ND	ND	268
1-Chloro-Octadecene	%		98	96	86	103

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

PO No:

CTL Lab No.:

0212259

Method #:

CT ETPH/3545

Analyst:

WENDEL 1 LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type:

CTL Sample No.:

SOIL 2775

SOIL 2776

SOIL 2777 SOIL 2778

Field ID:

B-108 (2-3) B-109 (0-1)

B-109 (2-2.5)

B-110 (0-1) 02/28/2012

Date Analyzed: **Date Extracted:**

02/28/2012 02/27/2012 02/28/2012 02/27/2012 02/28/2012 02/27/2012

02/27/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	ND	ND	ND	ND
1-Chloro-Octadecene	%		91	92	89	93

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

Method #: CT ETPH/3545

CTL Lab No.:

PO No:

0212259

WENDEL 1

Analyst:

LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type: CTL Sample No.: SOIL 2779 SOIL 2781

SOIL 2782 SOIL 2783

Field ID:

B-110 (2-3)

B-111 (0-1)

B-111 (2-3)

B-112 (0-1)

Date Analyzed:
Date Extracted:

02/28/2012 02/27/2012 02/28/2012 02/27/2012 02/28/2012 02/27/2012 02/28/2012 02/27/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	18,060	ND	14,980	ND
1-Chloro-Octadecene	%		319	93	510	95

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

Method #: CT ETPH/3545 CTL Lab No.:

0212259

WENDEL 1

PO No: Analyst:

LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type:

CTL Sample No.:

Field ID:

Date Analyzed: **Date Extracted:** SOIL

2784

B-112 (2-3)

02/28/2012

02/27/2012

SOIL 2785

B-113 (0-0.5)

02/29/2012

02/27/2012

SOIL 2786

02/29/2012

SOIL 2787

02/27/2012

B-114 (0-0.5) B-115 (0-0.5) 02/29/2012 02/28/2012

Parameters	Units	RL				
CT ETPH	mg/kg	50	ND	239	ND	ND
1-Chloro-Octadecene	%		96	106	69	91

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

Method #: CT ETPH/3545 CTL Lab No.: PO No:

0212259

Analyst:

WENDEL 1 LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type:

SOIL

CTL Sample No.:

2790

Field ID:

B-100 (0-1) DUP

Date Analyzed:

02/28/2012

Date Extracted:

02/27/2012

Parameters	Units	RL			
CT ETPH	mg/kg	50	ND		
1-Chloro-Octadecene	%		93		

RL=Reporting Level ND = None Detected

Client Name: Leggette, Brashears & Graham

Report Date: 02/29/2012

Method #: CT ETPH/3545 CTL Lab No.:

0212259 WENDEL 1

PO No: Analyst:

LP

RESULTS OF ANALYSIS

CTETPH-RCP

Matrix Type:

SOIL

SOIL

CTL Sample No.:

2788

2789

Field ID:

B-116 (0-1)

B-117 (0-1)

Date Analyzed:

02/28/2012

02/28/2012

Date Extracted:

02/27/2012

02/27/2012

Parameters	Units	RL			
СТ ЕТРН	mg/kg	100	514	992	
1-Chloro-Octadecene	%		104	99	

RL=Reporting Level ND = None Detected

Connecticut Testing Laboratories, Inc.

QUALITY CONTROL REPORT CTETPH-RCP

BLANK SOIL	LAB-ID#	LAB-ID# Sample Concentr.		QC Test Result	Pct (%) Recovery	RPD	
CT ETPH-mg/kg	0032142-02			ND			
CONTROL SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD	
CT ETPH-mg/kg	0032142-03		560	568	101.4%		
MS SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD	
CT ETPH-mg/kg	0000027-59	ND	280	360	128.6%		
MSD SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD	
CT ETPH-mg/kg	0000027-59	ND	280	330	117.9%	8.7%	

Type of QC	Surrogates	% Recovered	50 150		
BLANK	1-Chloro-Octadecene	91%			
Type of QC	Surrogates	% Recovered			
CONTROL	1-Chloro-Octadecene	80%	50 150 QC Limits (%		
Type of QC	Surrogates	% Recovered			
MS	1-Chloro-Octadecene	98%	50	150	
Type of QC	Surrogates	% Recovered	QC Limits (% 50 150		
MSD	1-Chloro-Octadecene	91%			

Order#: 0212259

Connecticut Testing Laboratories, Inc.

QUALITY CONTROL REPORT

CTETPH-RCP

BLANK	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
CT ETPH-mg/kg		0032143-02			ND		
CONTROL	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
CT ETPH-mg/kg		0032143-03		560	597	106.6%	
MS	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
CT ETPH-mg/kg		0000027-76	0	280	351	125.4%	
MSD	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
CT ETPH-mg/kg		0000027-76	0	280	344	122.9%	2.%

Type of QC	Surrogates	% Recovered	QC Limits (%)		
BLANK	1-Chloro-Octadecene	86%	50	150	
Type of QC	Surrogates	% Recovered	QC Li	mits (%)	
CONTROL	1-Chloro-Octadecene	86%	50 150		
Type of QC	Surrogates	% Recovered	QC Limits (%)		
MS	1-Chloro-Octadecene	99%	50	150	
Type of QC	Surrogates	% Recovered	QC Limits (%		
MSD	1-Chloro-Octadecene	96%	50	150	

Order#: 0212259

CONNECTICUT TESTING LAB'S, INC.

RCP DQA SUMMARY TABLE

CT ETPH

CTL Lab # 0212259 Client: LBG. Inc

Project: Wendel 1

Calibr. Date Type ဗ္ဗ Analyte CTL

Meets Method Requirements Notes No Anomalies No Anomalies See Method <30% RSD +/- 20% D Criteria 2/10/12 2/10/12 2/10/12 DChk ICAL <u>당</u> CT ETPH CT ETPH CT ETPH 2759 - 2775 2759 - 2775 2759 - 2775 Sample #

	_							
RPD Bias RPD Bias	SKERKER	Meets Method Beglifements	No Anomalies	No Anomaliae	No Anomalies	H Matrix Interference	No Anomaliae	No Anomalies
Criteria		Pass	Targets <rl< th=""><th>60-120%R</th><th>50-150%R</th><th>50-150%R</th><th>50-150%R</th><th>50-150%R RPD<30</th></rl<>	60-120%R	50-150%R	50-150%R	50-150%R	50-150%R RPD<30
% R						305		
۵%								
Spike Value						100	280	280
esult			QN QN			305		
QC Type R	CCAL	DChk	MB	SOT	SR	SR	MS	MSD
Г	CT ETPH C	CT ETPH [CT ETPH	CT ETPH	CT ETPH	CT ETPH	_	CT ETPH 1
BATCH 1	2759 - 2775	2759 - 2775	2759 - 2775	2759 - 2775	2759 - 2763, 2765 - 2775	2764	2759	2759

L=Low H= High NDR=Non Directional ICV= Initial Calibration Verification DChk= Discrimination Check ICAL = Initial Calibration

CCAL=Continuing Calibration

LCS= Laboratory Control Sample SR= Surrogate Recovery MB= Method Blank MS= Matrix Spike

MSD= Matrix Spike Duplicate

RSD= Relative Standard Deviation %D=% Drift

%R= % Recovery

RPD= Relative Percent Difference

CONNECTICUT TESTING LAB'S, INC.

RCP DQA SUMMARY TABLE

CT ETPH

CTL Lab # 0212259

Project: Wendel 1

Client: LBG. Inc

		_		_	_		_				
	Notes	No Anomalies	No Anomalies	Meets Method Requirements	STILL	RPD		No Anomalies	Meets Method Requirements	No Anomalias	No Anomalies
<u>;</u>			T			כפא					
-						in Se Se	-71				
	Criteria	<30% RSD	See Method	+/- 20% D		Criferia	0,000,	+/-30%D	Pass	Targets <rl< td=""><td>60-120%R</td></rl<>	60-120%R
						% R					
						Q%		0000			
Calibr.	Date	2/10/12	2/10/12	2/10/12		Spike Value					
						Result				S	
ဗ္ဗ	Type	ICAL	<u>S</u>	DChk		QC Type	1	בל לככי לככי	SC가	MB	CCS
	Analyte	CT ETPH	CT ETPH	СТ ЕТРН			CT ETDU		CT ETPH	CT ETPH	СТ ЕТРН
CTL	Sample #	2776 - 2779 & 2781-2790	2776 - 2779 & 2781-2790	2776 - 2779 & 2781-2790		BATCH 2	2776 2 2770 8 277C	2110-2119 & 2101-2190	2776 - 2779 & 2781-2790	2776 - 2779 & 2781-2790	2776 - 2779 & 2781-2790

L=Low H= High NDR=Non Directional

ICV= Initial Calibration Verification ICAL = Initial Calibration

CCAL=Continuing Calibration DChk= Discrimination Check

RSD= Relative Standard Deviation %D=% Drift LCS= Laboratory Control Sample

Matrix Interference Matrix Interference

ェ I

> 50-150%R 50-150%R

60-120%R 50-150%R 50-150%R

319 510

100 100 280 280

319

CT ETPH CT ETPH

2776 - 2778, 2781, 2783 - 2790

2779

2776

2782

SR MS

CT ETPH CT ETPH

50-150%R RPD<30

MSD

СТ ЕТРН

No Anomalies No Anomalies

No Anomalies No Anomalies

%R= % Recovery

RPD= Relative Percent Difference

MSD= Matrix Spike Duplicate

SR= Surrogate Recovery

MS= Matrix Spike

MB= Method Blank